

CLAIMS

I Claim:

1. A Private Exchange Catalog System and an OEM AML source, both connected to a network, an AML relating an OEM part number to a supplier and supplier part number, wherein the Private Exchange Catalog system is comprised of an Received AML storage containing a previous received AML and a Working AML storage containing the working AML such that when the Private Exchange Catalog system receives an AML from the AML source using the network, the Private Exchange Catalog System:

- Compares the received AML with the previous received AML from the Received AML storage,
- If different, then
 - a. The AML changes are identified in the working AML;
 - b. The working AML changes are made and validated;
 - c. The modified working AML is stored in the Working AML storage and the received AML is stored in the Received AML.

2. The Private Exchange Catalog System of claim 1, a BoM source also connected to the network, wherein the Private Exchange Catalog System further comprises a part number to Private Exchange part number translation and a BoM storage such that when a BoM source sends a BoM to the Private Exchange Catalog System using the network, the Private Exchange Catalog system

- Translates the part numbers in the received BoM to a BoM with Private Exchange part numbers,
- If a part number in the BoM has multiple Private Exchange part number translations, then one is selected as the Private Exchange part number,
- If a part number in the BoM is not in the part number translation, then a new part number is created in the part number to Private Exchange part number translation and a new AML created and stored in the Received AML storage using the information in the received AML, and
- Stores the translated BoM in the BoM storage.

3. The Private Exchange Catalog System of claim 1, an EMS site BoM receiver also connected to the network wherein the Private Exchange Catalog System further comprises a Private Exchange part number to EMS site translation and a BoM storage such that when a BoM is to be sent to the EMS site using the network, the Private Exchange Catalog System

- Retrieves the BoM from BoM storage,
- Translates the Private Exchange part numbers in the BoM to a BoM with EMS site part numbers and
- If a part number in the Private Exchange part number BoM is not in the Private Exchange to EMS site part number translator, then a new EMS site part number is created in the Private Exchange part number to EMS site part number translator, EMS site entries are added to the working AML in the Working AML storage
- Sends the translated BoM to the EMS site BoM receiver using the network.

4. The Private Exchange Catalog system of claim 1, a BoM and AML supplier also connected to the network wherein the Private Exchange Catalog system

- Receives the BoM and AML for the BoM and AML supplier,
- Translates the part numbers in the BoM to a BoM with Private Exchange part numbers,
- Compares the received AML with the previous AML from the Received AML storage.
- If the received AML part number entry does not match the entry in the pervious AML, then the BoM and AML supplier decides either to change the AML using the process of claim 1 or a new part number is created in the part number to Private Exchange part number translation and a new AML created and stored in the Received AML storage using the information in the received AML,
- If a part number in the BoM is not in the part number to Private Exchange part number translation, then a new Private Exchange part number is created in the part number to Private Exchange part number translation and a new AML created and stored in the Received AML storage using the information in the received AML
- Stores the translated BoM in BoM storage.

5. The Private Exchange Catalog system of claim 1, further comprises a commodity catalog containing item descriptions with corresponding commodity part numbers such that

while translating a BoM part number, the description for the part with the BoM part number is used to query the commodity item descriptions and if there is a match, the corresponding commodity part number is substituted for the translated Private Exchange part number.

6. The Private Exchange Catalog system of claim 1, further comprises a supplier update function that updates the supplier part numbers in the AML stored in the Working AML storage based on the supplier provided map of the old supplier part number to new supplier part number.

7. The Private Exchange Catalog System of claim 1, further comprises an initialization function where

- The EMS site, EMS part number, Supplier Name , and Supplier Part Number fields of AML stored in the Working AML are initialized from the EMS site system;
- OEM part number of the AML stored in the Received AML storage is initialized from the EMS site system;
- The OEM code is chosen;
- The Private Exchange part numbers of the AML stored in the Received AML storage are generated from the OEM code and OEM part number;
- The index field is generated to cross reference the rows in the AML stored in the Received AML storage and the Working AML storage

such that when an OEM AML is received and compared with the previous AML in the Received AML storage, the supplier name and supplier part number fields of the OEM AML are inserted into the supplier name and supplier part number fields of the previous AML and the now modified pervious AML is stored in the Received AML storage as the previous AML.

8. The Private Exchange Catalog System of claim 1, an EMS purchasing system, a supplier fulfillment system, both connected to the network wherein the Private Exchange Catalog System further comprised of an item family counter, where an item family identifier is assigned to each item, such that when an EMS purchasing systems sends a purchasing transaction with a part number and quantity to the Private Exchange Catalog System, the Private Exchange Catalog System uses the part number to obtain the item family identifier for the item represented by the part number and uses the item family identifier to increment

the item family counter by the quantity of the item in the purchase order, and the purchase order is sent to the supplier fulfillment system.

9. A Private Exchange Catalog System and an OEM AML sender both connected to a network wherein the Private Exchange Catalog System comprises a working AML and a copy of the previously sent AML with which to compare an AML sent by the OEM AML sender to identify changes, where the changes identify potential changes to the working AML that are made and validated and the received AML replaces the previously sent AML.

10. The Private Exchange Catalog System of claim 9, further comprising an OEM BoM to Private Exchange Catalog System BoM translation where the an OEM part number is mapped to a Private Exchange Catalog System part number such that when an OEM part number has no Private Exchange Catalog System part number a new Private Exchange Catalog System part number is created and when an OEM part number has multiple Private Exchange Catalog part numbers one is selected.

11. The Private Exchange Catalog System of claim 9, further comprising a Private Exchange Catalog System BoM to site BoM translation where a Private Exchange Catalog System part number is translated to a site part number such that when a Private Exchange Catalog System has no site part number, a new site part number is created.

12. The Private Exchange Catalog System of claim 9, further comprising an OEM AML and BoM to Private Exchange Catalog System AML and BoM translation where an OEM part number is translated to a Private Exchange Catalog part number such that when an OEM part number has no Private Exchange Catalog System part number a new Private Exchange Catalog System part number is created and when an OEM part number AML entry is different from the corresponding Private Exchange Catalog AML entry then either the Private Exchange Catalog AML entry is changed or a new Private Exchange Catalog part number and AML entry are created and when an OEM part number has multiple Private Exchange Catalog part numbers one is selected.

13. The Private Exchange Catalog System of claim 9, further comprising a Commodity Catalog and an OEM BoM to Private Exchange Catalog System BoM translation where the an OEM part number is mapped to a Private Exchange Catalog System part number such that the description of the item with the part number is used to search the Commodity Catalog and if a match is found, the Commodity Catalog part number is used as the Private Exchange Catalog part number and when an OEM part number has no Private

Exchange Catalog System part number a new Private Exchange Catalog System part number is created and when an OEM part number has multiple Private Exchange Catalog part numbers one is selected.

14. The Private Exchange Catalog System of claim 9, further comprising a supplier catalog update where a Private Exchange Catalog System Working AML supplier part number is updated with the supplier catalog part number.

15. The Private Exchange Catalog System of claim 9, further comprising an initialization function where information from a site system initializes the Private Exchange Catalog System AML except for the supplier and supplier part number sent by the OEM and the supplier and supplier part number are set when an AML is sent by the OEM.

16. The Private Exchange Catalog System of claim 9, further comprising an Item Family counter where each Private Exchange Catalog System part number has an Item Family identifier such that when a purchase order with a site part number and quantity is received, the site part number is used to determine the Private Exchange Catalog System part number Item Family identifier and the Item Family counter for that identifier is incremented by the quantity amount.

17. The Private Exchange Catalog System of claim 9, further comprising a site to site transfer where the BoM and AML for a first site is sent to a second site by transforming the Private Exchange Catalog System BoM and AML to the BoM and AML of the second site.